



Australian Government



Tasmania

TASMANIAN COMMUNITY FOREST AGREEMENT RESEARCH INTO ALTERNATIVES TO 1080

NEWSLETTER 3

October 2006

What's been happening

September has been another busy month.

The Implementation Committee have met three times during the month to discuss the directions for funding priorities. The divergent opinions of various stakeholders and of experts on the most promising lines of research and extension has resulted in the Implementation Committee spending significantly more time than originally anticipated in drafting a funding plan for the program.

The Project Manager has been calling on Technical Panel and Stakeholder members throughout the month to discuss likely approaches, costs and time frames for researching specific focus areas. A half day meeting of five of the Technical Panel members was also held as part of this process to provide comment on the key focus areas that the Implementation Committee have been considering.

Stakeholder consultation has continued, with TFGA putting in a lot of effort into organising two successful farmer forums on Alternatives to 1080 in Smithton and Bridport. 74 people attended these forums at which the Project Manager was the guest speaker.

The Project Manager also attended meetings organised by SAG member Guy Robertson, from NRM Cradle-Coast, with the Elliot Land Care Group. This included a visit to properties in the area to see first hand some of the issues associated with fencing and difficult terrain. Guy also organised a tour of the Woolnorth Property to discuss game management there.

Finally, The Project Manager, attended a field day with the Tasman Landcare Group, and participated in a 'lively' discussion on game management issues on the Peninsula.

Adrian Mundy of Tasmanian Plantation Management Services also showed the Project Manager around a plantation area where control shooting was about to be undertaken, explaining existing free-feed practices and the strategies they use to ensure effective game control on coupes.

What's Coming Up

It is now expected that members of the Stakeholder Advisory Group and Technical Panel will have the opportunity to comment on the draft funding priorities document in the second week of October, with the planned release of the final report to occur by the end of October.

The Project Manager will be attending the next meeting of the Tasmanian Deer Advisory Council (TDAC) meeting on Friday 13th of October to discuss the 1080 Alternatives Program, and is trying to organise a day to view the trapping used by Forestry Tasmania which has raised a lot of interest around the State. It is hoped to report more on this in the next Newsletter.

Effectiveness of Control

In recently established plantations and native forest, even a few animals can quickly cause unacceptable browsing damage and hence the management objectives for this critical period has been to keep browsing animal numbers very low.

In contrast, for pastures, a few animals are generally considered acceptable, but as the density of numbers increases and browsing damage increases, a threshold of acceptable damage is passed and farmers take actions to attempt to lower numbers back below their acceptable level.

Lethal controls such as 1080, shooting or lethal trapping are the most usual methods used to reduce local density of animals in both these situations, but there are lots of questions that can be asked about their effectiveness:

How do population levels compare before and after different lethal control intensities? How quickly do the animals return? How is the species mix affected? Where do these new animals come from, and what does it all mean for browsing damage and increased profitability?

Answers to these types of questions will help us understand the most effective way to implement lethal control methods, and also understand where and when barrier controls such as fences and tree guards may be more effective in controlling browsing damage.

So what is already known?

Brushtail Possums

Localised depopulation events have been examined in several studies, mainly in New Zealand¹.

For example, from 1995 two separate possum populations in native forest in New Zealand were monitored for two years before 6ha areas in the monitored area were depopulated. Population levels were then monitored for a further two years to observe recovery.

Two years after depopulation, the population in one area had recovered to 55% of the original density and 40% in the other area. The majority of the population increase occurred between the depopulation and the first trapping

two months later with population levels returning to 37% and 47% of original levels in these first two months.

A separate trial in New Zealand run from 1993 to 1996, mapped possum home ranges at a single site, and then after depopulation monitored the population levels. This research also found that the majority of population movement occurred in a matter of weeks, then remained fairly stable with the population level at 38% of the original level after 1 year and 48% after two years.

This trial was also able to establish that the majority of range-shift occurred from possums which had home-ranges overlapping with the depopulated area, with the remainder of the migration being from males moving large distances as they reach sexual maturity. Females tended to stick to their existing home-range, even if a more productive area was nearby, unless their range directly overlapped with this area.

These and other trials suggest that population immigration from the immediate vicinity occurs very quickly, but that the population levels in the area remain significantly below the original population even two years after the depopulation event.

This type of information tells us that lethal control for possums can be effective for long periods of time for pastures so long as the new population is below the threshold limit. It also tells us that for plantations where small numbers can cause critical damage, lethal control needs to be carried out fairly frequently in order to manage the initial influx of possums.

No research has monitored the associated impacts of these population changes on pasture or forest productivity. This is a critical factor for this program - relating changes in population numbers to changes in browsing damage and impacts on farming productivity.

¹ For references to these research papers, contact the Project Manager.

Wallabies and Pademelons

Surprisingly, I've only been able to find one research project (undertaken by Le Mar and Mc Arthur in 2001) into the impacts of local depopulation on wallabies, pademelons and possums movements.

This study concluded that 1080 was responsible for reduced local macropod populations, however it also raised many questions that required further investigation into the long term impacts on animal numbers and population dynamics and its affect on browsing damage.

Research into this area should, when combined with an understanding of the relationship between abundance and browsing damage, allow us to understand the effectiveness of lethal control on browsing damage.

Research needs to answer questions about how long controls are effective for, what densities populations need to be lowered too, and the benefits in pasture or plantation growth from controls. With this information, landowners can evaluate which of the lethal control options available will be most effective in achieving their management goals, or whether other controls such as fencing may be more effective.

In short, improving our understanding in this area, through practical research will not only improve our understanding of population dynamics and ecology for these animals, but also assist landowners in employing the most cost effective browsing control techniques for their situation.

Trap Designs

The next newsletter will hopefully have more information on trapping, but in the meantime, given the interest in trapping, I have included some photos

of the Forestry Tasmania Box Trap and Ivo Edwards trap below.



Figure 1 Mersey Box Trap.



Figure 2 Mersey Box Trap Holding Cage



Figure 3 Ivo Edwards Traps - 2 large wool bale size traps, and 2 intermediate size (for possums and pademelons).



Figure 4 Ivo Edwards Traps Collapsed Trap

A code of practice for trapping of live-trapping and destroying Tasmanian Pademelons is also available from the DPIW Wildlife Management Branch.

Any questions or comments about the program should be directed to John Dawson, Project Manager 1080 Alternatives on 03 6233 6728 or john.dawson@dpiw.tas.gov.au. Any media enquires about the 1080 Alternatives Program should initially be directed to Shaun Rigby on 03 6233 2451 or shaun.rigby@dpac.tas.gov.au